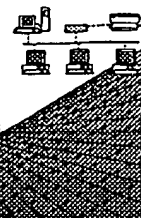




0300

BIOTECHNOLOGY
SYSTEMS
BRANCH

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/862,855F
Source: OIPE
Date Processed by STIC: 5/27/2003

- THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
 - 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
- FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

BEST AVAILABLE COPY



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/862,855F

DATE: 05/27/2003
TIME: 14:42:35

Input Set : A:\EP.txt
Output Set: N:\CRF4\05272003\I862855F.raw

3 <110> APPLICANT: Cai, Hong
4 Keller, Richard
5 Werner, James
6 Goodwin, Peter
8 <120> TITLE OF INVENTION: RAPID HAPLOTYPING BY SINGLE MOLECULE DETECTION
10 <130> FILE REFERENCE: S-94,652
12 <140> CURRENT APPLICATION NUMBER: US 09/862,855F
C--> 13 <141> CURRENT FILING DATE: 2003-05-12
15 <160> NUMBER OF SEQ ID NOS: 21
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 20
21 <212> TYPE: DNA
22 <213> ORGANISM: Unknown
W--> 23 <220> FEATURE: ~~Feature:~~ delete
W--> 23 <220> FEATURE: ~~Feature:~~
24 <223> OTHER INFORMATION: 20-mer probe complementary to 20 base pair region of M13mp18
target
25 containing EcoR I restriction site
27 <400> SEQUENCE: 1
28 gctcgaattc gtaatcatcg 20
31 <210> SEQ ID NO: 2
32 <211> LENGTH: 18
33 <212> TYPE: DNA
34 <213> ORGANISM: Unknown
W--> 35 <220> FEATURE: ~~Feature:~~
W--> 35 <220> FEATURE: ~~Feature:~~
36 <223> OTHER INFORMATION: 18-mer probe complementary to 18 base pair region of M13mp18
target
37 containing Hind III restriction site
39 <400> SEQUENCE: 2
40 cagtgcgaag cttcgatg 18
43 <210> SEQ ID NO: 3
44 <211> LENGTH: 97
45 <212> TYPE: DNA
46 <213> ORGANISM: Unknown
W--> 47 <220> FEATURE: ~~Feature:~~
W--> 47 <220> FEATURE: ~~Feature:~~
48 <223> OTHER INFORMATION: Synthetic chimera template derived from genes MLL(HRX,Htrx)
and AF4(FEL)
50 <400> SEQUENCE: 3
51 gaagttccca aaaccactcc tagtgagccc aagaaaaagc agcctccacc accaaaacaa 60
53 tatgatacat cttcaaaaac tcaactcaaat tctcagc 97
56 <210> SEQ ID NO: 4

The CRF software inserts alphabetical headings
Do NOT show alphabetical headings for clarity.
Does Not Comply
Corrected Diskette Needed
in new sequence rules format.
pp 1,3-5,7

57 <211> LENGTH: 27
58 <212> TYPE: DNA

RAW SEQUENCE LISTING

DATE: 05/27/2003

PATENT APPLICATION: US/09/862,855F

TIME: 14:42:35

Input Set : A:\EP.txt

Output Set: N:\CRF4\05272003\I862855F.raw

```

59 <213> ORGANISM: Unknown
W--> 60 <220> FEATURE: Feature:
W--> 60 <220> FEATURE: Feature:
61 <223> OTHER INFORMATION: DNA probe sequence complementary to MLL portion of SEQ ID
NO:3
63 <400> SEQUENCE: 4
64 aaaaatttct tgggcttcac tagggag 27
67 <210> SEQ ID NO: 5
68 <211> LENGTH: 29
69 <212> TYPE: DNA
70 <213> ORGANISM: Unknown
W--> 71 <220> FEATURE: Feature:
W--> 71 <220> FEATURE: Feature:
72 <223> OTHER INFORMATION: DNA probe sequence complementary to AF4 portion of SEQ ID
NO:3
74 <400> SEQUENCE: 5
75 aaaaaaattt gagtgagttt ttgaagatg 29
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 12
80 <212> TYPE: DNA
81 <213> ORGANISM: Unknown
W--> 82 <220> FEATURE: Feature:
W--> 82 <220> FEATURE: Feature:
83 <223> OTHER INFORMATION: PNA probe sequence for MLL portion of SEQ ID NO:3
85 <400> SEQUENCE: 6
86 tttcttgggc tc 12
89 <210> SEQ ID NO: 7
90 <211> LENGTH: 12
91 <212> TYPE: DNA
92 <213> ORGANISM: Unknown
W--> 93 <220> FEATURE: Feature:
W--> 93 <220> FEATURE: Feature:
94 <223> OTHER INFORMATION: PNA probe sequence for AF4 portion of SEQ ID NO:3
96 <400> SEQUENCE: 7
97 tttgagtgag tt 12
100 <210> SEQ ID NO: 8
101 <211> LENGTH: 12
102 <212> TYPE: DNA
103 <213> ORGANISM: Unknown
W--> 104 <220> FEATURE: Feature:
W--> 104 <220> FEATURE: Feature:
105 <223> OTHER INFORMATION: LNA probe sequence for MLL portion of SEQ ID NO:3
107 <400> SEQUENCE: 8
108 tttcttgggc tc 12
111 <210> SEQ ID NO: 9
112 <211> LENGTH: 12
113 <212> TYPE: DNA
114 <213> ORGANISM: Unknown
W--> 115 <220> FEATURE: Feature:
W--> 115 <220> FEATURE: Feature:
116 <223> OTHER INFORMATION: LNA probe sequence for AF4 portion of SEQ ID NO:3

```

RAW SEQUENCE LISTING

DATE: 05/27/2003

PATENT APPLICATION: US/09/862,855F

TIME: 14:42:35

Input Set : A:\EP.txt

Output Set: N:\CRF4\05272003\I862855F.raw

```

118 <400> SEQUENCE: 9
119 tttgagtgag tt 12
122 <210> SEQ ID NO: 10
123 <211> LENGTH: 32
124 <212> TYPE: DNA
125 <213> ORGANISM: Unknown
W--> 126 <220> FEATURE: Feature:
W--> 126 <220> FEATURE: Feature:
127 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
128 variant for the HLA gene
130 <400> SEQUENCE: 10
131 tggcagctca gaccaccaag cacaagtggg ag 32
134 <210> SEQ ID NO: 11
135 <211> LENGTH: 76
136 <212> TYPE: DNA
137 <213> ORGANISM: Unknown
W--> 138 <220> FEATURE: Feature:
W--> 138 <220> FEATURE: Feature:
139 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
140 variant for the HLA gene
142 <400> SEQUENCE: 11
143 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggagtggctc 60
145 cgcagatacc tggaga 76
148 <210> SEQ ID NO: 12
149 <211> LENGTH: 32
150 <212> TYPE: DNA
151 <213> ORGANISM: Unknown
W--> 152 <220> FEATURE: Feature:
W--> 152 <220> FEATURE: Feature:
153 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
154 variant for the HLA gene
156 <400> SEQUENCE: 12
157 tggcagctca gaccaccaag cacaagtggg ag 32
160 <210> SEQ ID NO: 13
161 <211> LENGTH: 76
162 <212> TYPE: DNA
163 <213> ORGANISM: Unknown
W--> 164 <220> FEATURE: Feature:
W--> 164 <220> FEATURE: Feature:
165 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
166 variant for the HLA gene
168 <400> SEQUENCE: 13
169 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggagtggctc 60
171 cgcagatacc tggaga 76
174 <210> SEQ ID NO: 14
175 <211> LENGTH: 32
176 <212> TYPE: DNA
177 <213> ORGANISM: Unknown
W--> 178 <220> FEATURE: Feature:

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/862,855F

DATE: 05/27/2003
 TIME: 14:42:35

Input Set : A:\EP.txt
 Output Set: N:\CRF4\05272003\I862855F.raw

```

W--> 178 <220> FEATURE: Feature:
      179 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      180         variant for the HLA gene
      182 <400> SEQUENCE: 14
      183 tggcagctca gaccacccaa gacaagtggg ag                               32
      186 <210> SEQ ID NO: 15
      187 <211> LENGTH: 76
      188 <212> TYPE: DNA
      189 <213> ORGANISM: Unknown
W--> 190 <220> FEATURE: Feature:
W--> 190 <220> FEATURE: Feature:
      191 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      192         variant for the HLA gene
      194 <400> SEQUENCE: 15
      195 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggacgggctc       60
      197 cgcagatacc tggaga                                                    76
      200 <210> SEQ ID NO: 16
      201 <211> LENGTH: 32
      202 <212> TYPE: DNA
      203 <213> ORGANISM: Unknown
W--> 204 <220> FEATURE: Feature:
W--> 204 <220> FEATURE: Feature:
      205 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      206         variant for the HLA gene
      208 <400> SEQUENCE: 16
      209 tggcagctca gaccacccaa ggcaagtggg ag                               32
      212 <210> SEQ ID NO: 17
      213 <211> LENGTH: 76
      214 <212> TYPE: DNA
      215 <213> ORGANISM: Unknown
W--> 216 <220> FEATURE: Feature:
W--> 216 <220> FEATURE: Feature:
      217 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      218         variant for the HLA gene
      220 <400> SEQUENCE: 17
      221 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggacgggctc       60
      223 cgcagatacc tggaga                                                    76
      226 <210> SEQ ID NO: 18
      227 <211> LENGTH: 32
      228 <212> TYPE: DNA
      229 <213> ORGANISM: Unknown
W--> 230 <220> FEATURE: Feature:
W--> 230 <220> FEATURE: Feature:
      231 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      232         variant for the HLA gene
      234 <400> SEQUENCE: 18
      235 tggcagctca gaccacccaa ggcaagtggg ag                               32
      238 <210> SEQ ID NO: 19

```

RAW SEQUENCE LISTING

DATE: 05/27/2003

PATENT APPLICATION: US/09/862,855F

TIME: 14:42:35

Input Set : A:\EP.txt

Output Set: N:\CRF4\05272003\I862855F.raw

```

W--> 178 <220> FEATURE: Feature:
      179 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      180         variant for the HLA gene
      182 <400> SEQUENCE: 14
      183 tggcagctca gaccacccaa gacaagtggg ag                               32
      186 <210> SEQ ID NO: 15
      187 <211> LENGTH: 76
      188 <212> TYPE: DNA
      189 <213> ORGANISM: Unknown
W--> 190 <220> FEATURE: Feature:
W--> 190 <220> FEATURE: Feature:
      191 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      192         variant for the HLA gene
      194 <400> SEQUENCE: 15
      195 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggacgggctc       60
      197 cgcagatacc tggaga                                              76
      200 <210> SEQ ID NO: 16
      201 <211> LENGTH: 32
      202 <212> TYPE: DNA
      203 <213> ORGANISM: Unknown
W--> 204 <220> FEATURE: Feature:
W--> 204 <220> FEATURE: Feature:
      205 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      206         variant for the HLA gene
      208 <400> SEQUENCE: 16
      209 tggcagctca gaccacccaa ggcaagtggg ag                               32
      212 <210> SEQ ID NO: 17
      213 <211> LENGTH: 76
      214 <212> TYPE: DNA
      215 <213> ORGANISM: Unknown
W--> 216 <220> FEATURE: Feature:
W--> 216 <220> FEATURE: Feature:
      217 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      218         variant for the HLA gene
      220 <400> SEQUENCE: 17
      221 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggacgggctc       60
      223 cgcagatacc tggaga                                              76
      226 <210> SEQ ID NO: 18
      227 <211> LENGTH: 32
      228 <212> TYPE: DNA
      229 <213> ORGANISM: Unknown
W--> 230 <220> FEATURE: Feature:
W--> 230 <220> FEATURE: Feature:
      231 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
      232         variant for the HLA gene
      234 <400> SEQUENCE: 18
      235 tggcagctca gaccacccaa ggcaagtggg ag                               32
      238 <210> SEQ ID NO: 19

```

239 <211> LENGTH: 76

RAW SEQUENCE LISTING

DATE: 05/27/2003

PATENT APPLICATION: US/09/862,855F

TIME: 14:42:35

Input Set : A:\EP.txt

Output Set: N:\CRF4\05272003\I862855F.raw

```

240 <212> TYPE: DNA
241 <213> ORGANISM: Unknown
W--> 242 <220> FEATURE: Feature:
W--> 242 <220> FEATURE: Feature:
243 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
244     variant for the HLA gene
246 <400> SEQUENCE: 19
247 gcggcccatg tggcggagca gcagagagcc tacctggagg gcacgtgcgt ggagtggctc      60
249 cgcagatacc tggaga                                          76
252 <210> SEQ ID NO: 20
253 <211> LENGTH: 32
254 <212> TYPE: DNA
255 <213> ORGANISM: Unknown
W--> 256 <220> FEATURE: Feature:
W--> 256 <220> FEATURE: Feature:
257 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
258     variant for the HLA gene
260 <400> SEQUENCE: 20
261 tggcagctca gaccacccaa ggcaagtggg ag      32
264 <210> SEQ ID NO: 21
265 <211> LENGTH: 76
266 <212> TYPE: DNA
267 <213> ORGANISM: Unknown
W--> 268 <220> FEATURE: Feature:
W--> 268 <220> FEATURE: Feature:
269 <223> OTHER INFORMATION: Synthetic oligonucleotide template containing a subset of a
sequence
270     variant for the HLA gene
272 <400> SEQUENCE: 21
273 gcggcccatg tggcggagca gttgagagcc tacctggagg gcacgtgcgt ggacgggctc      60
275 cgcagatacc tggaga                                          76

```

VERIFICATION SUMMARY

DATE: 05/27/2003

PATENT APPLICATION: US/09/862,855F

TIME: 14:42:36

Input Set : A:\EP.txt

Output Set: N:\CRF4\05272003\I862855F.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:23 M:283 W: Missing Blank Line separator, <220> field identifier
L:23 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:35 M:283 W: Missing Blank Line separator, <220> field identifier
L:35 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:47 M:283 W: Missing Blank Line separator, <220> field identifier
L:47 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:60 M:283 W: Missing Blank Line separator, <220> field identifier
L:60 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:71 M:283 W: Missing Blank Line separator, <220> field identifier
L:71 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:82 M:283 W: Missing Blank Line separator, <220> field identifier
L:82 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:93 M:283 W: Missing Blank Line separator, <220> field identifier
L:93 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:104 M:283 W: Missing Blank Line separator, <220> field identifier
L:104 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:115 M:283 W: Missing Blank Line separator, <220> field identifier
L:115 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:126 M:283 W: Missing Blank Line separator, <220> field identifier
L:126 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:138 M:283 W: Missing Blank Line separator, <220> field identifier
L:138 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:152 M:283 W: Missing Blank Line separator, <220> field identifier
L:152 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:164 M:283 W: Missing Blank Line separator, <220> field identifier
L:164 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:178 M:283 W: Missing Blank Line separator, <220> field identifier
L:178 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:190 M:283 W: Missing Blank Line separator, <220> field identifier
L:190 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:204 M:283 W: Missing Blank Line separator, <220> field identifier
L:204 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:216 M:283 W: Missing Blank Line separator, <220> field identifier
L:216 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:230 M:283 W: Missing Blank Line separator, <220> field identifier
L:230 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:242 M:283 W: Missing Blank Line separator, <220> field identifier
L:242 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:256 M:283 W: Missing Blank Line separator, <220> field identifier
L:256 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:268 M:283 W: Missing Blank Line separator, <220> field identifier
L:268 M:256 W: Invalid Numeric Header Field, <220> has non-blank data